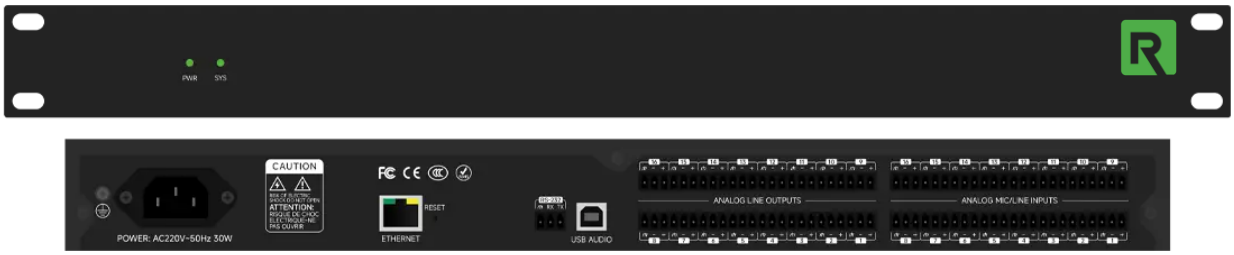
RESOUNDIFY

EchoPrime-B1616

Audio DSP with Support 16*16



PRODUCT OVERVIEW

The **Resoundify** EchoPrime-B1616 is a professional-grade 16×16 digital audio signal processor built to meet the demanding needs of networked audio systems, multi-room AV setups, and enterprise-grade installations. Powered by a high-performance EchoPrime DSP engine and integrated with Dante audio networking, the B1616 delivers exceptional flexibility, precision, and reliability in managing complex audio signal paths.

The EchoPrime-B1616 represents a new class of intelligent audio processors designed for the next generation of IP-based AV systems. Combining a powerful EchoPrime DSP processing engine with full Dante™ digital audio networking, it offers unmatched flexibility, audio fidelity, and system scalability for conference rooms, auditoriums, control centers, broadcast facilities, and smart building infrastructures.

KEY FEATURES

- **Professional SHARC DSP Core:** Delivers powerful processing using Analog Devices' renowned SHARC platform, ensuring low-latency performance and customization potential.
- **High-Quality Audio Processing:** 24-bit/48kHz audio resolution ensures crystal-clear sound quality across all channels.
- **Intelligent Feedback Suppression:** Adaptive per-channel feedback elimination for consistent, interference-free audio.
- **Auto Mixer & Gain Control:** Features Gain Sharing Auto Mixer, AGC, and Ducker for smooth level balancing in real-time.
- **Ambient Noise Compensation:** Dynamically adjusts levels based on background noise fluctuations.
- **Expandable Control Options:** 8 configurable GPIOs (input/output/ADC), RS-232 & UDP support with assignable ports for central control systems.
- **Multi-Platform Compatibility:** Supports both iOS and Windows OS with dual USB audio interface for recording and conferencing.

APPLICATIONS

- Boardrooms
- Classrooms
- Auditorium

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TECHNICAL SPECIFICATIONS

System Specifications

Processor	ADI SHARC 21489@450 MHz SIMDx2
Raw Processing Capacity	400 MIPS, 1.6 GFLOPS
Sampling Rate	48 kHz ± 100 ppm
Frequency Response (A/D/A)	20 Hz - 20 kHz ± 0.3 dB
Dynamic Range (A/D/A)	113 dB (A-weighted)
THD + Noise	< -95 dB (22.4 kHz BW, unweighted); 1 kHz @ +17 dBu, 0 dB gain
Channel Separation (A/D/A)	108 dB @ 1 kHz, +24 dBu
Latency (A/D/A)	<6 ms (input routed directly to output)
Delay Memory	174 mono seconds
Analog Control Inputs	0-3.3 VDC
Recommended External Control Potentiometer	10k Ohm, linear taper
Logic Outputs	Low (0 V) when active Pulled high (5 V) when inactive
Logic Output Maximum External Power Supply / Current Sinking	24 VDC / 50 mA
Logic Output Maximum Output Current	10 mA
RS-232 Accessory Serial I/O	57.6 kbps (default), 8 data bits, 1 stop bit, no parity, Straight-through wiring; pins 2, 3, 5 used
Maximum Stored Presets	16 storable presets
Dimension	482x260x45mm

Rear View